



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,151	01/16/2001	Yat-Tung Lam	MP0071	2849

26703 7590 03/10/2006

HARNES, DICKEY & PIERCE P.L.C.
5445 CORPORATE DRIVE
SUITE 400
TROY, MI 48098

EXAMINER

KING, JUSTIN

ART UNIT PAPER NUMBER

2111

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/759,151

Applicant(s)

LAM ET AL.

Examiner

Justin I. King

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 377-426 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 377-426 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Art Unit: 2111

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 407-426 are rejected on the ground of nonstatutory double patenting over claims 3 and 4 of U. S. Patent No. 6,871,251 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: The claim 3 of the 251 Patent claims a control information indicating whether associated data is continued from a previous location or from a new location. The previous location indicated by the claim 3's control information is equivalent to the Applicant's alleged patentable feature split sector, and the new location indicated by the claim 3's control information is equivalent to the Applicant's alleged patentable feature non-split sector.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the Application, which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 377-406, 415, and 425 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed *variable* number of words in the serial control data signal cannot be located in the Specification as originally presented.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 377-406, 416, and 426 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 377, 387, 397, 416, 426 recite the limitation "said m words". There is insufficient antecedent basis for this limitation in the claim. Claims 378-386, 388-396, and 398-406 are rejected because they incorporate the parent claims' limitations.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2111

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 407, 411, 417, and 421 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Sharma (U.S. Patent No. 6,636,906).

Referring to claims 407 and 417: The prior art discloses a serial control data circuit (figure 1, structure 12) and data circuit (figure 1, structure 14). The prior art does not explicitly disclose the control data signal including information regarding split or non-split. Sharma discloses a method of solving the latency problem in I/O operations caused by each device (Column 1, lines 36-37). Sharma teaches one to obtain the data value at the time the request was made and to make forward progress without incurring delay attributable to obtaining the updated value (column 2, lines 15-21), and Sharma teaches an embodiment with splitting transactions (Column 3, lines 51-53). Sharma discloses that it is known to indicate whether the transaction is split or non-split (column 6, lines 35-37). Sharma's means to control the split transaction activities is equivalent to the claimed serial control data signal. Since the split transaction splits transaction into several sessions, the first session is the first split, the last session is the last split, and any sessions in between are the continue splits. Sharma discloses the indication for the split mode (Remark, page 65, 3rd paragraph, last 2 lines), the number of requesting bits (Remark, page 65, last paragraph), and unique transaction identifier (column 5, lines 48-50, column 6, lines 20-22). Since Sharma discloses the indication for the split mode, the total number of transmitting

Art Unit: 2111

bits, and the unique transaction ID, each data receiver/requestor can determine whether the received data is a first split, continue split, or last split. Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt the Sharma's teaching onto the prior art because Sharma teaches one how to accommodate the latency in I/O operation with either split or non-split capability.

Referring to claims 411 and 421: Sharma discloses the indication for the split mode (Remark, page 65, 3rd paragraph, last 2 lines), the number of requesting bits (Remark, page 65, last paragraph), and unique transaction identifier (column 5, lines 48-50, column 6, lines 20-22). Since Sharma discloses the indication for the split mode, the total number of transmitting bits, and the unique transaction ID, each data receiver/requestor can determine whether the received data is a first split, continue split, or last split, which determines the claimed whether the succeeding serial control data is a continuation of a current serial control data.

4. Claims 408-410 and 418-420 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of the admitted prior art and Dunn (U.S. Patent No. 5,274,772).

Referring to claims 408-410 and 418-420: The prior art does not explicitly disclose specifying the amount of the data or codeword in each session is a common practice in constructing data packets. Dunn discloses a record format to accommodate different record length. Dunn discloses a data format with fields of PCT CNT and CNT (figure 2). The PCT CNT indicates the number of packets in the block, and CNT indicates the summation of the original length of the supplied records (column 4, lines 4-6). The PCT CNT is equivalent to the claimed code word size of the current sector. Hence, it would have been obvious to one having

Art Unit: 2111

ordinary skill in the computer art at the time Applicant made the invention to adapt Dunn's teaching onto the prior art because Dunn enables one to improve the transmission efficiency by controlling the data amount in each session.

5. Claims 412-414 and 422-424 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view Dun, and in further view of Bliss (U.S. Patent No. 6,009,549).

Referring to claims 412, 414, 422, and 424: The prior art does not explicitly disclose the padding data and sync mark. Dunn discloses that the padding data is a known practice to align packet fields (column 4, lines 44-46), so each packet is in a proper predetermined format. Bliss discloses the sync mark is a practice for synchronizing data stream (figure 1B). Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt the teachings of Dunn and Bliss onto the prior art because Dunn enables one to improve the transmission accuracy by controlling the packet format in each session and Bliss teaches one to synchronize the data stream with the sync mark.

Referring to claims 413 and 423: Bliss discloses a sync transceiver (figure 4, structure 44) for receiving sync mark.

Conclusion

6. The prior art made of recorded and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,844,920 to Zook et al.: Zook discloses segmented data transmission with sync marks.

Art Unit: 2111

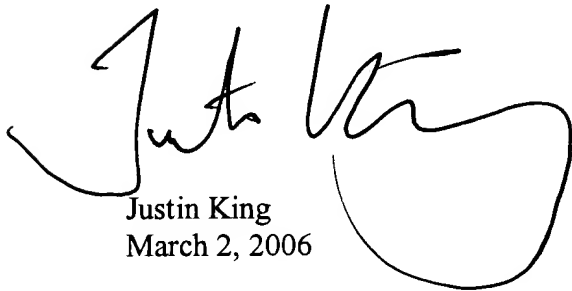
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin I. King whose telephone number is 571-272-3628. The examiner can normally be reached on Monday through Friday, 9:00 am to 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079 or on the central telephone number, (571) 272-2100. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests

Art Unit: 2111

to restart a period for response due to a missing U.S. patent or patent application publications
will not be granted.



Justin King
March 2, 2006



JOHN COTTINGHAM
PE
MINER